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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/081,419
	Filing Date	Feb 22, 2002
	First Named Inventor	Williams, Dwight P.
	Art Unit	3752
	Examiner Name	Ganey
Total Number of Pages in This Submission	Attorney Docket Number	50051

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  <b>Response to Notification of non- compliant Appeal Brief mailed 10-25- 06</b>
<b>Remarks</b> It is believed that no further request for extension of time or fees are due. Notwithstanding, the Commissioner is authorized to charge any additional fees incurred or credit any overage to Deposit Account No.50-1753 ( 50051 ). Please regard this as a further request for extension of time to the extent one is needed. (Customer Account Number 22929)		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name			
Signature			
Printed name	Sue Z. Shaper		
Date	November 1, 2006	Reg. No.	31663

**CERTIFICATE OF TRANSMISSION/MAILING**

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Signature			
Typed or printed name	Sue Z. Shaper	Date	November 1, 2006

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Williams

Application No.: 10/081,419

Filed: 2/22/2002

Title: Around-the-Pump Additive System for Industrial Scale Hazards

Attorney Docket No.: 50051

Art Unit:  
3752

Examiner:  
Ganey

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Mailed 10-25-6 UNDER 37 CFR.41.37

Dear Sir:

The notification of non-compliant Appeal Brief indicated that the summary of claim subject matter failed to adequately map each independent claim to the specification by page and line number and to the drawings if any.

In accordance with MPEP 1205.03 applicant files a paper providing a new (v) **Summary of Claimed Subject Matter** in accordance with §1.37 (c)(1)(v) that includes a section (beginning page 2 of the paper) that maps each independent claim to the specification by page and line number and to the drawings if any.

Applicant submits that the new map supplies any deficiency otherwise in the Appeal Brief in fully correlating the elements of the independent claims with the specification by page and line number and with the drawings.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

11/1/6  
Date

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**(v) Summary of Claimed Subject Matter**

**Background**

**Clarification of Distinction between “Standard Pumps” and “Fire Fighting Pumps.”**

One of ordinary skill in the pertinent art would understand and appreciate a distinction between “standard pumps having no 2½ inch inlet” and typical “fire fighting pumps.” To substantiate that this is a recognized distinction among those of ordinary skill in the pertinent art, applicant submitted (with the above referenced Submission and Amendment after Final under §1.116) a copy of NFPA 1901 Standard for Automotive Fire Fighting Apparatus Regulations as well as a website printout from a large “standard pump” rental agency, “Rain for Rent.” Both are attached in evidence appendix. It seemed advisable to show that a distinction between “standard pumps having no 2½ inch inlet” and “fire fighting pumps” could be substantiated among material publicly available. The Regulations and the website are both matters of public knowledge, publicly accessible records.

Firefighting pumps are constructed to meet NFPA 1901 Standard for Automotive Fire Fighting Apparatus Regulations, a copy of relevant portions of which is attached in the evidence appendix. Firefighting pumps are to include a 2½ inch, or “pony,” inlet on the suction side of the pump. (Fire fighting Regulations 1901-45, ¶ 16.6.3 and 16.6.3.1.) The Regulations require that at least one valved intake be provided that can be controlled from the operator’s position, and 2½ inch is the standard size for what is referred to in the industry as the “pony inlet.” The 2½ inch “pony” inlet is used for running an “around-the-pump” system in order to add foam concentrate to the water. The around-the-pump system diverts a small amount of water from the discharge side of the pump through a foam concentrate uptake system, such as a jet pump, and back to the suction side of the pump, hence the name “around-the-pump” system. By such means foam concentrate is introduced into the water supply.

Further, fire fighting pumps of 2000 gpm or greater have a water intake manifold typically providing for two or more 6" water lines. See Table 16.7.1 in attached Regulations 1901-45. The specification discusses the construction of fire fighting pumps on page 1 line 25 through page 2 line 8.

As applicant uses the phrase, “standard” pumps or “general purpose” pumps to refer to pumps that have a water inlet but no pony inlet, no special 2½ inch inlet.” Such standard pumps rated for at least 2000 gpm and with a water manifold inlet are commonly found at an industrial site (where there is a fire.) See specification page 2 lines 17 through 25.

To confirm the existence of “standard pumps” without a “pony inlet,” attached to the submission in the evidence appendix is a print-out from a website of “Rain for Rent,” a pump rental operator. Applicant’s attorney called the “Contact Us 800 number” of Rain for Rent, as indicated in the submission, and inquired whether any of the 34 pumps illustrated on the website provided a 2½ inch inlet

on the suction side of the pump. “Daniel,” to whom applicant’s attorney was referred with this question, said none of the pumps provided such a 2½ inch inlet. The pumps came with inlet manifolds but none provided a 2½ inch inlet.

The distinction between such “standard pumps” and “fire fighting pumps” is made in the specification. See spec p1 line 25 through p2 line 8.

Problem to be Solved

Fighting industrial fires frequently entails drafting water, typically from a reservoir, using line(s) to communicate the water to the hazard and entails assembly of a source of additive (paradigmatically foam concentrate) with a fire fighting pump in an around-the-pump take-up system. The pump must pressure the water as well as the around-the-pump additive system. See spec p1 lines 13-38.

It had been assumed that running an around-the-pump system required a specifically outfitted fire fighting pump with a pony inlet. See spec p2 line 6 through line 8.

Emergencies can arise, however, when the necessary equipment is all available except for a the special fire fighting pump with the pony inlet. It would not be unusual for appropriately sized “standard pumps” without a “pony inlet” to already be at the site. See spec p1 lines 9-25.

The instant invention teaches providing a fitting such that an appropriate “standard pump” could operate an around-the-pump system. In appropriate circumstances, this could save time, money and the environment. See spec p2 lines 17-25.

Map of Each Independent Claim to the Specification by Page and Line Number and to the Drawings, if Any

1. A fire fighting system comprising:

**(Including both prior art and inventive system, see essentially all of the specification, i.e. P1 L5 - P11L7, and all Fig.s 1-5.)**

pumping at least 2000 gpm water from a large water reservoir (R,W) toward an industrial hazard (Tank Farm)

**(Including both prior art systems and inventive system, see: P1L13 – 29; P2L29 – P3L6; P3L23 – 38; P4L1 – 30; P5L3 – 13; P6L24 – P7L4; and Fig.s 1 – 5.)**

using a standard pump (P of Fig.s 2 - 5) having a water manifold inlet (F2 of Fig. 2, F4 of Fig. 3, not labeled in Fig.s 4 - 5) but no special approximately 2 ½ inch inlet (no SF of Fig. 1); and

**(For “non-standard pumps” of prior art systems, for contrast, see: P1L33 – P2L8; P5L3 – 13; Fig. 1, especially “SF” of Fig. 1 for illustration of “special approximately 2 ½ inch inlet.”)**

**(For “standard pump,” see: P2L9 – 25; P5L22 – 39; P6L24 – P7L4; Fig.s 2 – 5. Note: no “SF” of Fig. 1.)**

adding, in an around-the-pump system, at least one water additive (A) from a water additive source (S) to the pumped water

**(Including both prior art systems and inventive system, see: P1L30 – P2L5; P2L29 – 35; P4L31 – P5L2; P5L14 – 21; P6L24 – P7L4; Fig.s 1 - 5.)**

through a fitting (FS) at least initially separate from the standard pump (P of Fig.s 2 - 5), the fitting established on a suction side of the pump (P of Fig.s 2 - 5) upstream of the pump water manifold inlet (F2 of Fig. 2, F4 of Fig. 3, not labeled in Fig.s 4 - 5) and in fluid communication between a reservoir (W, R) outlet and the suction side.

**(See P2L21 – 25; P2L32 – P3L6; P6L1 – 23; Fig.s 2 – 5.)**

9. A fire fighting system, comprising;

**(Including both prior art and inventive system, see essentially all of the specification, i.e. P1 L5 - P11L7, and all Fig.s 1-5.)**

a large water reservoir (W, R);

**(Including both prior art systems and inventive system, see: P1L13 – 29; P2L29 – P3L6; P3L23 – 38; P4L1 – 30; P5L3 – 13; P6L24 – P7L4; and Fig.s 1 – 5.)**

an at least 2000 gpm standard pump (P of Fig.s 2 - 5) having a water manifold inlet (F2 of Fig. 2, F4 of fig. 3, not labeled in Fig.s 4 - 5) but no special approximately 2 ½ inch inlet (no SF of Fig. 1);

**(For “non-standard pumps” of prior art systems, for contrast, see: P1L33 – P2L8; P5L3 – 13; Fig. 1, especially “SF” of Fig. 1 for illustration of “special approximately 2 ½ inch inlet.”)**

**(For “standard pump,” see: P2L9 – 25; P5L22 – 39; P6L24 – P7L4; Fig.s 2 – 5. Note: no “SF” of Fig. 1.)**

a source (S) of water additive (A); and

**(Including both prior art systems and inventive system, see: P1L30 – P2L5; P2L29 – 35; P4L31 – P5L2; P5L14 – 21; P6L24 – P7L4; Fig.s 1 – 5.)**

a fitting (FS) at least initially separate from the pump (P of Fig.s 2 - 5) and attached between and adapted for fluid communication with

1) a reservoir (W, R) outlet and a suction side of the pump (P of Fig.s 2 - 5) and

2) the water additive (A) source (S) and the suction side of the pump (P of Fig.s 2 - 5)

wherein the fitting (FS) is established on a suction side of the pump (P of Fig.s 2 - 5) upstream of the pump water manifold inlet (F2 of Fig. 2, F4 of Fig. 3, not labeled in Fig.s 4 - 5).

**(See P2L21 – 25; P2L32 – P3L6; P6L1 – 23; Fig.s 2 – 5.)**

16. A fire fighting system, comprising;

**(Including both prior art and inventive system, see essentially all of the specification, i.e. P1 L5 - P11L7, and all Fig.s 1-5.)**

a large water reservoir (W, R);

**(Including both prior art systems and inventive system, see: P1L13 – 29; P2L29 – P3L6; P3L23 – 38; P4L1 – 30; P5L3 – 13; P6L24 – P7L4; and Fig.s 1 – 5.)**

an at least 2000 gpm standard pump (P of Fig.s 2 - 5) having a water manifold inlet (F2, F4) but no special approximately 2½ inch inlet (no SF of Fig.1);

**(For “non-standard pumps” of prior art systems, for contrast, see: P1L33 – P2L8; P5L3 – 13; Fig. 1, especially “SF” of Fig. 1 for illustration of “special approximately 2 ½ inch inlet.”)**

**(For “standard pump,” see: P2L9 – 25; P5L22 – 39; P6L24 – P7L4; Fig.s 2 – 5. Note: no “SF” of Fig. 1.)**

a source (S) of water additive (A); and

**(Including both prior art systems and inventive system, see: P1L30 – P2L5; P2L29 – 35; P4L31 - P5L2; P5L14 – 21; P6L24 – P7L4; Fig.s 1 – 5.)**

means (FS) separate from the pump (P of Fig.s 2 – 5) for connecting an around-the-pump additive supply line with the suction side of the pump, the connecting means established on a suction side of the pump upstream of the pump water manifold inlet (F2 of Fig. 2, F4 of Fig. 3, not labeled in Fig.s 4 - 5).

**(See P2L21 – 25; P2L32 – P3L6; P6L1 – 23; Fig.s 2 – 5.)**

**Concise Explanation of the Invention of the Independent Claims.**

Independent claims 1, 9, 16 and 17 recite (in relatively analogous method and apparatus terms):

- (1) a large water reservoir R or W; (Fig 2, 3, 4)
- (2) pumping at least 2000 gpm (or a pump P therefor); (Fig 2-5)
- (3) a standard pump P (Fig 2-5) having a water manifold inlet F2, F4 but no special approximately 2.5 inch inlet (such as SF of prior art Fig 1, such as dictated by Regulations NFPA 1901), and
- (4) a “fitting” FS (or means having the structure of a fitting FS.) (Fig 2-5)

Claims 1, 9 and 16 further recite that the fitting is

- (5) “at least initially separate from the pump.”

All claims recite such fitting

(6) “established on the suction side of the pump upstream of the pump water manifold inlet F2, F4.” (Fig 2-5)

The fitting is in fluid communication between the reservoir and the pump suction side. (Fig 2-4)

To summarize key limitations for this appeal, all four independent claims recite (3) “a standard pump having a water manifold inlet but no special approximately 2½ inch inlet,” as well as (1) a large water reservoir and (2) pumping at least 2000 gpm. All recite (4) a fitting (or means) (6) “established on the suction side of the pump, upstream of the pump water manifold inlet” for running an around-the-pump system. Claims 1, 9 and 16 further recite that (5) the fitting is at least initially separate from the pump. “Initially,” read in light of the specification, should connote “prior to the hazard.”

**These limitations will be referenced below in the Argument.**

There is one means plus function claim limitation. This is the last limitation of claim 16. Structure corresponding to the “means” of claim 16 is fitting FS, illustrated in Figures 2, 3, 4 and 5 and discussed on p5 line 22 to p6 line 23.

Person of Ordinary Skill in the Art

The person of ordinary skill in the art would be an industrial fire fighter with five or more years of experience. A typical industrial fire fighter has not completed any advanced engineering education nor has any experience in the manufacture of pumps.